

Remarks

Claims 1-27 are pending in this application. Claims 1-27 are rejected. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

The title of the invention has been objected to as being non-descriptive. Applicants have amended the title and submit that the objection has been overcome. Accordingly, Applicants request the Office to withdraw the objection to the title.

Claims 6, 7, 15, 16, 20 and 22-27 have been objected to for informalities. Applicants have amended claims 6, 7, 15, 16 and 20 to correct the informalities including replacing “back-to back” with “back-to-back” in claim 6, to make clear which “elements” claims 6, 7, 15 and 16 are reciting and to provide proper antecedent basis in claim 20. Additionally, Applicants submit that claims 22-27 do further limit claim 21. For example, claim 21 recites, among other elements “coupling a transmit pulse through a transmit section input” and “coupling a receive signal through a receive section input” and claim 22 adds the limitation that the transmit section input is coupled to the receive section output. Accordingly, claim 22 requires that the coupling occur in a system wherein the transmit section input is coupled to the receive section output. Moreover, and for example, claim 24 recites wherein “receive signal blocking circuitry comprises low level signal blocking circuitry.” Accordingly, the coupling occurs wherein low level signal blocking circuitry is now required. Each of claims 22-27 further limit the steps of the claimed method recited in claim 21. Accordingly, Applicants request the Office to withdraw the objection to claims 6, 7, 15, 16, 20 and 22-27.

Claims 1-27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Peterson et al. (U.S. Patent 6,050,945), hereafter Peterson in view of Moore et al. (U.S. Patent 6,511,432), hereafter Moore. Applicants respectfully traverse this rejection for at least the reasons set forth below.

Each of independent claims 1, 10 and 21 variously recite, among other elements transmit signal blocking circuitry coupled between the receive section input and the receive section output including a “coupling capacitor adapted to decouple” the receive section during operation of the transmit section. The Office Action admits at page 3 that the Peterson reference does not teach a coupling capacitor capable of decoupling the receive section during operation of the transmit section. The Office Action then asserts that the Moore reference teaches a coupling capacitor capable of decoupling the receive section during operation of the transmit section. Applicants respectfully disagree.

The Moore reference teaches blocking capacitors 60 that provide isolation between the inputs and outputs of diode bridges 25 (column 4, lines 42-44). Essentially, the capacitors block the output DC level from the diode bridges 25. Thus, in operation the DC power signal is produced across the capacitor and the capacitor blocks the DC power signal from reaching the transducer (see, for example, claims 9 and 23 of Moore). However, the Moore reference describes using an inductor to decouple and block the transducer excitation signal from reaching the preamplifier (see, for example, claims 7 and 21 of Moore). In contrast, the coupling capacitor of the various embodiments of the invention protect the signal processor from the transmit signal voltage by decoupling (see, e.g., application as filed, page 24, paragraph 0087). The Moore reference teaches the use of an inductor for decoupling and protecting the processing components, not a capacitor. Thus, the decoupling in the system of Moore is provided by the inductor, while the claimed invention includes a capacitor adapted to decouple the receive section during operation of the transmit section. In order to render unpatentable a claim, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989). Although the system of Moore includes a blocking capacitor 60, the capacitor is not adapted to decouple as recited in the claimed invention. Accordingly, Applicants submit that claims 1, 10 and 21 are allowable.

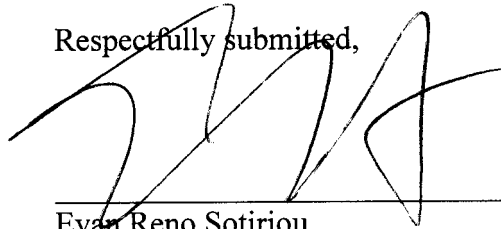
Moreover, claims 2-9 depend from claim 1, claims 11-20 depend from claim 10 and claims 22-27 depend from claim 21. Applicants submit that these claims recite additional

subject matter not anticipated or rendered obvious by the cited references. Moreover, claims 2-9, 11-20 and 22-27 are likewise allowable based at least on the dependency of these claims from the independent claims.

Furthermore, there may be additional reasons other than those described herein or before that claims 1-27 are each patentable over the cited references. Without waiver of such additional reasons, Applicants reserve the right to argue such reasons hereafter.

In view of the foregoing amendments and remarks, it is respectfully submitted that the cited references neither anticipate nor render obvious the claimed invention and the pending claims in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Date: February 6, 2009

Evan Reno Sotiriou
Registration No. 46,247
THE SMALL PATENT LAW GROUP LLP
225 S. Meramec, Suite 725
St. Louis, MO 63105
314-584-4082